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Docket No.: 61352-083

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Customer Number: 20277
Hiroshi NAGAHAMA : Confirmation Number: To Be Assigned
Serial No.: To Be Assigned : Group Art Unit: To Be Assigned
Filed: July 9, 2004 : Examiner: To Be Assigned
For: LIGHTING UNIT AND LIQUID CRYSTAL DISPLAY DEVICE USING THE SAME

PETITION TO MAKE SPECIAL UNDER 37 C.F.R. § 1.102(d)

Mail Stop Petitions
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant hereby petitions to make special the above-identified application in accordance with 37 CFR § 1.102(d). Pursuant to M.P.E.P § 708.02(VIII), Applicant complies with each of the following items:

A. FEE

Please charge Deposit Account 500417 the amount of \$130.00 as set forth in 37 CFR § 1.17(h) to cover the fee for the present Petition to Make Special.

B. SINGLE INVENTION

If the Office determines that all the claims presented are not obviously directed to a single

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invention, Applicants will make an election without traverse and hereby invites the Examiner to telephone the undersigned Applicants' representative for a telephonic election.

C. PRE-EXAMINATION SEARCH

Applicants submit that a pre-examination search has been made in earlier filed Japanese Application No. JP. 2002-096528 filed March 29, 2002 and PCT Application No. PCT/JP03/04067 filed March 31, 2003. The field of search included Int. Cl. F21V8/00, G02F1/13357. The following relevant references were cited in the International Search Report:

1. Japanese Patent Application Publication No. JP 2001-216827 A ("827") to Hiroshi assigned to Matsushita Electric Industrial Co., Ltd.
2. Japanese Patent Application Publication No. JP 2001-356334 A ("334") to Masahiko assigned to Sony Corp.
3. Japanese Patent Application Publication No. JP 11-142841 A ("841") to Kazuya assigned to Matsushita Electric Industrial Co., Ltd.

D. COPY OF THE REFERENCES

Each of the above references have been cited on an IDS filed concurrently with the above application. Courtesy copies of the above references are provided with this petition.

E. DETAILED DISCUSSION

Present Invention

The present invention relates to a lighting unit comprising a light source, a light guiding component for guiding light emitted from the light source and emanating the light from a light emanating surface to an object to be illuminated, a reflecting component covering at least a bottom surface of the light guiding component, a light correction component disposed on the light emanating surface of the light guide component, and a case for holding the light source.

As recited by pending claim 1, the present invention as illustrated, for example, in Figs. 1-3, includes a lighting unit comprising:

- a light source;
- a light guiding component for guiding light emitted from the light source and emanating the light from a light emanating surface to an object to be illuminated;
- a reflecting component covering at least a bottom surface of the light guiding component;
- a light correction component disposed on the light emanating surface of the light guiding component; and
- a casing for holding the light source, the light guiding component covered with the reflecting component, and the light correction component, wherein
 - the casing has an opening portion in a region corresponding to a light emanating region of the light correction component; and
 - the object to be illuminated is disposed in direct contact with an upper surface of the light correction component within the opening portion.

F. COMPARISON OF PRIOR ART AND PRESENT INVENTION

Comparison with JP 2001-216827 A ("827") to Hiroshi

Hiroshi discloses that a reflecting sheet 3 is folded at the upper end of the side enclosing a light source 2 so that the tip portion 3a makes contact with the back face 4a of the light correcting sheet 4 by utilizing repulsive force caused by this folding. Hiroshi further discloses that the correction sheet 4 is a resinous film, so that the end portion of the light correction sheet 4 can be bent easily so as to allow contact with the liquid crystal panel 11. In other words, Hiroshi specifically discloses that the light correction sheet 4 and the liquid crystal panel 11 are spaced from each other by the predetermined clearance G2 for preventing dust from entering into the liquid crystal panel 11 (see, [0044]).

In contrast, in accordance with one embodiment of the present invention, since the object to be illuminated by the lighting unit is in direct contact with the upper surface of the light correction component within the opening formed in the casing, the clearance is not required between the light correction component and the object to be illuminated for preventing deflection and other deformation.

Comparison with JP 2001-356334 A ("334") to Masahiko

Masahiko discloses a liquid crystal unit 15A comprising a color filter glass plate 11 and a glass substrate 10 having the liquid crystal 12 sealed between them, where a first polarizing plate 9A and a second polarizing plate 14A are also disposed on the surface of the TFT glass plate 10 and the color filter glass plate 11.

Specifically, as readily shown in Fig. 3 of Masahiko, clearances are provided between the

light guiding plate 6 and the diffusing plate 7, the diffusing plate 7 and the lens film 8, the lens film 8 and the first polarizing plate 9A, between the first polarizing plate 9A and the TFT glass substrate 10, and the second polarizing plate 14A and the lid 5. Masahiko further discloses that the lid 5 is fixed to the casing 3 such that the cover glass plate 16 fixed to the inner surface of the lid 5 presses against the second polarizing plate 14A so as to allow close contact between the lid 5 and the second polarizing plate 14A (see, [0044]).

Masahiko further asserts that in the direct-vision type liquid crystal display device 1A, the first polarizing plate 9A is not bonded to the TFT glass substrate 10 by an adhesive film. Rather, the first polarizing plate 9A and the second polarizing plate 14A are placed at predetermined positions by the spacer 9B and 14B, respectively. In other words, the first polarizing plate 9A makes contact with the TFT glass substrate 10 by inserting the light guiding plate 6, the diffusing plate 7 and the lens film 8 into the inside of the casing 3.

On the other hand, in accordance with one embodiment of the present invention, the object to be illuminated is disposed such that it is in direct contact with the upper surface of the light correction component within the opening. Since the opening or the light emanating region is formed on the lid portion of the casing, the clearance is not required and can be eliminated between the light correction component and the object to be illuminated.

Also, Masahiko discloses that the casing 3 is not provided with a lid portion, as such an opening cannot be formed on the lid portion. Further, the spacer 9B is used for horizontally positioning the first polarizing plate 9A (see, [0045]), and thus does not correspond to the casing as recited in claim 1.

Comparison with JP 11-142841 A ("841") to Kazuya

Kazuya discloses a LCD comprising a LCP 9, a light transmission plate 5 arranged on the LCP 9, a reflection sheet 3 stuck to the transmission plate 5, a lamp 4 arranged on one side of the transmission plate 5, a reflector 2 for wrapping the lamp 4, and a metallic cover 6 for holding the transmission plate 5. As readily shown in Fig. 1, the diffusing sheet 8 and the liquid crystal display panel 9 are spaced apart from each other by a predetermined clearance of housing 7 disposed between them. As such, the liquid crystal panel 9 is not in direct contact with the diffusing sheet 8 within an opening portion. Rather a predetermined clearance is required between the liquid crystal panel 9 and the diffusing sheet 8.

On the other hand, in accordance with one embodiment of the present invention, the object to be illuminated is disposed such that it is in direct contact with the upper surface of the light correction component within the opening. Since the opening or the light emanating region is formed on the lid portion of the casing, the clearance is not required and thus can be eliminated between the light correction component and the object to be illuminated.

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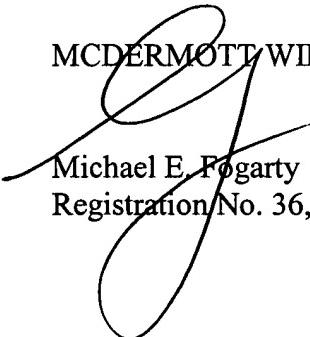
G. CONCLUSION

In view of the above, it is urged that the petition to make special is in proper form, and an indication of grant is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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